□□□□□□□□□□□□□

□□□ □□□

□□□□

□□

□□

□□□

□□□

□□□

□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□Universal Approximation Theorem □□□

□□

Nash Embedding Theorems □□ Word-embedding Vector Space □□□

□□□□□□□□□□□□□ AlphaGo □□□□□□□□□□□□□□□□□SAE level 4 □□□□□□□□□□□□□□Turing Test □□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□

Deepmind □□□□□ Reward Is Enough □□□□□□ reward □□□□□□□□□□□ reward □□□□ reward □□□□□□□□□□□□□□□□□□□□□□□□□□□□□□

□□□□□□□□□□□□□□□□critique□□

□□□□□□□□□□

□□□critique□□□□□□□□□ criticus □□□□ κριτικός□□ critical □ judgement □□□

（free will）

Ştefan Odobleja（Psychologie consonantiste）

Leukotomy selfish gene

selfish gene selfish gene

□□□judge □ deadline□□□

□□

□□

□□

□□□

□□□□□□□□□□ AlphaGo □□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□ dataset□□

□□□AlphaGo □□□□ without human knowledge □□

□□□□□□□□□□□□□□ AlphaGo Zero □□ AlphaGo □□ AlphaGo □□□ AlphaGo □□□□□□□

□□Reward Is Enough □□

□□

□□

□□□ individualism□□□

□□□□□□□□□□□□□□□□

□□

□□

□□□□"□"□"□"□□

□□

□□□

□□□ e □□□□□□□□ $\exp(x)$ □□□□□□□□□□□□□□□□: $d(\exp(x))/dx = \exp(x)$□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□

□□"□□□"□□□□□□□□□"□□□"□□□□□□□□□□□□□□□□□□□□

□□□

□□

□□

□□"□□□□□"□"□□□□□"□□□

□□□AlphoGo □□□

□□□

□□□The Selfish Gene□□ The Immortal Gene□□

□□ word-embedding vector space □□□□□□□□□□□□□□□□□□□□□□ Nash Embedding Theorems □□□□□□□□□

□□

□□□

□□□□□□□□□□□□□

□□

□□□□□□□□□□□□□□□□□□□□□□□□□□□□ conjecture□□□□ Grigori Perelman □□□ Poincaré conjecture □□□

□□□□□□□ conjecture□□□□□□□□□□□□□□□□□□□□□□ conjecture□□□ conjecture□□□□□□ AlphaGo □□□□□□□□□□□□□□□□□□□□□□□□□□□ AlphaGo □□□□□□□□

□□□

□□

□□□

□□

□□□

□□□

□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□"□□"□□□

□□□
Demis Hassabis □□□□□□□□□□□ a meta-solution to any problem □□□

□□□

□□□

□□

□□□

□□□□□□□□□□□□

□□□□□□□□□□□□□□□□□□□□□□□□□□ A□B□C□D □□□□□□□□□□□

A. □□□□□□□□□□□□□

1. □□□

2. □□□□□□□□□□□□□□□

3. □□□□ Chaitin's constant □□□□□□□□□□□□□□□□□□□□□□□□□

4. □□□□□□□□□□□□□□□□□□□□□□

5. □□□□□ 1 - 4 □□□□□□□□□□□□□□□□□□□□□□□□□□□□

B. □□□□□□□□□□□□□□□□

6. □□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□relevance theory □□□□□□□□□□□□□□□□□□□□□□□□□□□□□□

7. □□

8. Grigori Perelman □ Poincaré conjecture □□

9. Demis Hassabis □ AlphaGo □□□□□□□□□ intuition□□□□□□□□□□□□ intuition □□□ Demis Hassabis □□□□ AlphaGo □□□□ intuition □□□□□□□□ AlphaGo □□□□□□□□□□□□□ a meta-solution to any problem□

10. □□ AlphaGo □□□□□□ Nature □□□□□□□□ superhuman performance□□□

C. □□□□□□□□□□□□□□□□□□

11. □□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□ form □□□

12. □□□□□□□□□□□ motif □□

13. □□□□□□□□□□□"truth"□□□□□ truth□□

14. □□□□□□□□ The Selfish Gene□□ The Immortal Gene□□□□□□□□□□□□□□□□□□□□□□□□□

15. □□□□□□□□□□□□□□□□□□□□□□□□□□□□Freeman Dyson □□□ Birds and Frogs □□ birds □ frogs □□□

16. □□□□□□□□□□□□Austrian School of Economics□□□

17. □□□ selfish gene □□□

D. □□□□□□□□□□□□□□□□□□□**:**

18. □□□

19. □□□

20. □□□□□"□□□□"□□□□□□□□□□□□"□□□□□□□□□□□□□"□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□logical positivism □ logical empiricism□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□

21. □□□ Turing Machine □□□deterministic, probabilistic, etc.□□□□□□□□□□□□□

22. □□ Turing Test □□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□ SAE level 4 □ level 5 □□□

23. □□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□ word-embedding vector space □ encoder-decoder, attention, transformer, BERT □□

24. □□□□□□□□□ deep-learning □□□□□□ deep residual networks □□□□□generative adversarial networks, etc.□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□

25. □□□□□□□□□□□□ Universal Approximation Theorem □□□ overfitting□underfitting □□□□□□□□□□□□□□□□□□□□□ chaos phenomena □□□□□□□□□□□□

26. □□selfish gene □□□

27. □□

□□□□□□□□□□□□□

□□□
□□□□□□

□□□
exact □□□□□Demis Hassabis □□□□□ a meta-solution to any problem□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□
□□□□

□□□□□□□□□□□□□□□□□□□□□□ Freeman Dyson □□□
□□□

□□□
□□□□□□□□□

□□□□□□□□□□□□□□□□□□□□□□□"□□□□□□□□□□"□□□

□□□
□□

□□□
□□□
□□□

Demis Hassabis □ AlphaGo □□ AlphaGo □□□□□□□□□□□□□□□
□□□
□□

□□□□□□□□□□ AlphaGo □□□□□ AlphaGo Master □□□□□□□□□□□□ Nature □□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□
□□□

□□Fight-or-flight □□□□□□□□□□□□□□□□□
□□□□□□□□□□□□□□□□ AlphaGo Zero □ retire□□□□□□ fight-or-flight □□□□□□□□□□□□□□□□□□□□

□□□ SAE level 5 □□□□□□□□□SAE level
4 □□□□□□□□

□□□
□□□
□□□

□□□

□□□
□□□

□□□The Selfish
Gene □□□□□□□□□□□□□□

□□Freeman□□□□□□great bird□□□□□□□□□□frog□□□□□□□□□□bird □ frog □□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□frog □□□□□□□□□□□□□□□□□□□□□□□frog □□□□□□□□□□□□□□□□□□□□□□□bird□

Freeman □□□□□frog□□□□□Birds and Frogs □□□□□bird □□□□□□□□□□□Freeman □□□□□□□□□□□□□□□bird □□□□□□□□□□frog □□□□□□□□□□bird □□□□□□□□□□□Freeman □□□□□□□□□□□□□□□□□□□□□□□□□□□□

□□□

□□

□□□

□□□

□□

□□

□□"□□□□□□□□□□□□□□□"□□□

□"□"□□□□natural law □□□□□□□□□□□□□□□□□□□□□□□natural law□□□□□□□□□□□□□□natural law□□□□□□□□□□□□□□□□□"□"□□□□□□□

□□□"□□□□□□□□□□□□□□"□□

□□

□□□□□□□□□□□□□□□□□□□□□□□□□□□

□□

□□□

AlphaGo ... AlphaGo Zero ... AlphaGo ...

1 ... AlphaGo ... AlphaGo Zero ... AlphaGo ...

2 ...

3 ...

4 ...

1) ... 2) ... 3) ... 4) ... 1) ... 2) ...

□□□□

□□□

□□

□□□□□□□□□ common core □□□ global picture□□□

□□ common core □□

□□□